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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,998	09/16/2003	Haishan Zeng	2055/41210 Case PA 5	3912

279 7590 10/23/2006

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EXAMINER	
CHAO, ELMER M	

ART UNIT	PAPER NUMBER
3737	

DATE MAILED: 10/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/663,998	ZENG ET AL.	
	Examiner	Art Unit	
	Elmer Chao	3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-66 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-66 is/are rejected.

7)☒ Claim(s) 9 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 6/08/2005 & 3/09/2005.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claim 9 is objected to because of the following informalities: The term "claim 7" in the claim is believed to be erroneous and should instead be "claim 6". The examiner believes that claim 9 was intended to be dependent on claim 6 due to the similar dependency structure of claims 39 and 42. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 44-65 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 44, 47, 53, 56, and 63 recite the limitation "additional assessment" in the claims. There is insufficient antecedent basis for this limitation in the claim. The examiner believes that all of the occurrences of the term "additional assessment" in claims 44-65 refer to the "assessing" step claimed in claim 34. The examiner will interpret the claims in this manner for the purpose of this office action. Please make any necessary changes.

Claims 45-46, 48-52, 54-55, 57-62, 64, and 65 are rejected because of their dependency on claims 44, 47, 53, 56, and 63.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-6, 11-15, 20-25, 30-32, 34-39, 44-48, 53-58, and 63-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fulghum (U.S. 6,364,829 B1) in view of Freitag et al. (U.S. 6,061,591). Fulghum '829 discloses a method for imaging and diagnosing a target comprising illuminating the target with visible light and auto fluorescent light (abstract), diagnosing the imaged tissue by comparing a quantitative score to a benchmark score (C9, L61-64; Fulghum '829 discloses a benchmark score for each pixel as the "predetermined value (typically one-half to one-third)," and a quantitative score as the "ratio image pixel value".), providing a visual alert based on prior information, and displaying said quantitative score and said benchmark score (C9, L64-67; C10, L1-14; Fulghum '829 discloses the displaying of the scores on a LCD monitor as a false color map that compares the two scores and assigns a red (high probability of dysplasia), green (moderate probability of dysplasia), or gray (normal probability of dysplasia) for each pixel score comparison. These displayed colors act as visual alerts for the operator of the endoscope. The prior information is the reference image or fluorescent raw data taken just before the false color map is generated.). Fulghum '829 does not disclose assessing the target as a background task.

However, Freitag '591 teaches assessing the target as a background task wherein said assessing step comprises fluorescence spectroscopy and fluorescence imaging (abstract; Freitag '591 discloses using a laser to stimulate fluorescence while simultaneously illuminating the site of interest with white light. The screen may display a normal white light endoscopic picture.), wherein a plug-in analyzer (fluorescence excitation-emission matrix spectroscopy probe) is used to analyze the fluorescent emissions (C3, L60-63; Note that the analyzer in the figures (Items 5, 15, and 43) are all "plugged into" the system). It would have been obvious to a person of ordinary skill at the time of the invention to modify Fulghum '829 to include assessing the target as a background task as evidenced by Freitag '591. Such a modification would be advantageous because the diagnosis possibilities of various cancer phenomena are increased (C1, L59-64; C6, L37-39).

Claims 7-8, 16-17, 26-27, 40-41, 49-50 and 59-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fulghum '829 in view of Freitag '591, further in view of Fulghum '829. Fulghum '829 and Freitag '591 disclose all of the limitations as discussed above. They do not explicitly disclose the method of manually switching between displays after the visual alert. However, Fulghum '829 does teach the use of a footswitch (Fig 2b, Item 206), which allows for the operator to switch between white light and fluorescence visualization (C3, L1-4). It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Fulghum '829 and Freitag '591 to include using a footswitch to switch between white light and fluorescence

visualization after the visual alert. Such a modification would be advantageous in allowing the operator to verify and observe signs of dysplasia from both white light and fluorescent images separately after the computer has identified high probability areas of dysplasia, and hence provide for a more accurate diagnosis.

Claims 9-10, 18-19, 28-29, 42-43, 51-52, and 61-62, are rejected under 35 U.S.C. 103(a) as being unpatentable over Fulghum '829 in view of Freitag '591, further in view of Fulghum '829. Fulghum '829 and Freitag '591 disclose all of the limitations as discussed above. They do not explicitly disclose the method of automatically switching between displays after the visual alert. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Fulghum '829 and Freitag '591 to include the method of automatically switching between displays after the visual alert using the computer provided by Fulghum '829 (Fig 3, Item 334) since its been held in *In re Venner, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958)* that merely providing an automatic means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art. Furthermore, an automated switching mechanism, ideally provided by the computer in Fulghum '829 instead of a manual switch would be a desirable alternative by relieving the operator from the burden of having to depress a switch.

Claims 33 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freitag '591 in view of Strommer et al. (US 2002/0049375). Freitag '591 discloses

the limitations as discussed above. Freitag '591 does not disclose a method of using an endoscopy positioning system. Strommer '375 teaches the use of a medical positioning system to navigate an endoscope (abstract; Para [0026], Strommer '591 describes the use of an endoscope as the surgical tool). Such a modification would be advantageous in its own right because it would allow the operator to know the position of the endoscope to better locate any abnormities in the tissue.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wang et al. (U.S. 6,537,211 B1).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elmer Chao whose telephone number is (571)272-0674. The examiner can normally be reached on 9am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on (571)272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EC
10/16/2006

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